

Work Order ID 78641

78641

Page 1

January-12-12 7:50:18 AM

Item ID: D206-642-151

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Replacement Skidtube

Start Date: 12/01/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 26/01/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: M.C.J

Date: 12/01/12

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3804	A								
IIN-D206-642	O								

100

0.00

100

DOCUMENT CONTROL

DC

0.00

Document Control

Memo

Photocopy bluefile & type labels per PPP D206-642-151

CHG001

N/A

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes -No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Work Order ID 78641***78641***

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January-12-12 7:50:18 AM

Item ID: D206-642-151

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Replacement Skidtube

Stop ***NS2***

Start Date: 12/01/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 26/01/2012 Req'd Qty: 1.00

1

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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110

0.00

110

Skidtubes

Skidtubes

Memo

0.00

1-Deburr Fwd edge of tube

2- Remove ridge on inside of Fwd edge of tube as per Dwg D3804

3-Weld Fwd Cap as per Dwg D3804. Use aluminum rod. Grind D2647 to fit as required.

Pick:

Qty Part Number Description Batch

A/R Aluminum Rod

M119785/M119712

3 BER-01-17

4-Grind weld flush to cap on top surface only.

5-Cut Aft end as per dwg D3804 from front of tube and Deburr

6-Remove inner indexing ridge on Aft end of skidtube as per Dwg D3804

7-Open holes for Aft end cap as per Dwg D3804 with #30 Drill Bit using DT8025.

8-Drill pilot holes using Dt8166 & DT8169D & DT9771.

9-Locate DT8732 from inner Aft saddle hole & 3rd crossbolt hole. Insert D3286-1 doubler using DT8732 & D206-642-241-T1, then locating doubler off of 3/16" holes, cleco DT8732 & doubler leaving DT8732 for added support.

10- Drill D3286-1 doubler rivet holes in tube using # 30 drill, spot drilling doubler at the same time.

SAD 12-01-17

OK 12/01/18

W/O:		WORK ORDER CHANGES					
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 Start Date: 12/01/2012 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 26/01/2012 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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11-Working from the center out, drill # 30 holes into D3286-1 doubler. Cleco each hole as it is being drilled. Verify angle of holes to accommodate rivet heads.

12-Remove 3/16" cleco's only and open GHW holes to Ø0.500" as per Dwg D3804

13-Remove D3286-1 doublers, identify orientation, deburr, then attach them to the workorder

14-Remove indexing edge using DT8741 as per Dwg D3804

15-C'sink GHW rivet holes as per Dwg D3804

16- Open Aft cap hole #6.
 ****no wearplate holes for this skidtube****

17-Deburr tube and blow out chips from inside the tube

120

120

QC

Quality Control

QC6- Inspect dimensions to drawing

0.00

Memo

0.00

5/26/12

OC 12/01/18

W/O:		WORK ORDER CHANGES					
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Chemical Conversion Coat per QSI005 4.1	0.00							
140									
HandFinish	Memo	0.00				①	Ø	CF	12-1-18
Hand Finishing									
150	QC3- Inspect Part Finish	0.00							
150									
QC	Memo	0.00				①	Ø	SAD	12-02-18
Quality Control									
160		0.00							
160									
Skidtubes	Skidtubes								
Skidtubes	Memo	0.00							
	1-Open holes to finished size as per Dwg D3804, (without cutting fluid)								
	2-C'sink crossbolt spacer holes as per Dwg D3804(without cutting fluid)								
	3-Deburr and blow out all chips from inside the tube								

DC 12/01/18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Required Date: 26/01/2012 Req'd Qty: 1.00

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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

170 QC6- Inspect dimensions to drawing

0.00

170

QC

Memo

0.00

Quality Control

1 0 BE 12-01-18

180

0.00

180

Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Locate, install and rivet doublers as per Dwg D3804. Micro-shave rivets as required

Dec 12/01/18

2-Bond D2654-1 web in place as per QSI 015. Ensure holes line up. Allow 12

Hrs. cure time before cutting

Start Date: 12-1-18 Time: 16:20

Finish Date: 12-01-19 Time: 10:00

Pick:

Qty Part Number Description Batch

A/R Sikaflex-291 M119508

Sikaflex expire date:

12-08-13

CF ① CF 12-1-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Start Date: 12/01/2012 **Start Qty:** 1.00

*** 1 ***

Cust Item ID:

Required Date: 26/01/2012 **Req'd Qty:** 1.00

*** 1 ***

Customer:

Reference:

Approvals: _____ **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

[illegible]

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Cust Item ID:

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1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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200

0.00

200

Skidtubes

Skidtubes

Skidtubes

Memo

0.00

1-remove alodine from around hole and prepare for welding

2-Prep per QSI 005 and Insert D2649 crossbolt spacers. Weld as per QSI 004 and Dwg D3804. Remember to back drill each hole to 0.25" before welding the other side. Use aluminum rod.

Pick:

QtyPart NumberDescriptionBatch

A/RAluminum Rod m119785

3-Grind welds flush as per Dwg D3804.

4-Using DT8733, insert (2) D3286-3 spacers as per QSI 004 and Dwg D3804. Remember to back drill each hole to Ø0.402" before welding other side. Use SS rod as required.

A/RSS Rod NONE BE 12-01-20

5-Counterbore 5/16" x 0.750" deep except 7th hole from Aft end as per Dwg D3804. Deburr

BE 12-01-19BE 12/01/19DP12-1-23

W/O:		WORK ORDER CHANGES					
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January-12-12 7:50:18 AM

78641

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

*** 1 ***

* 1 *

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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210	0.00
-----	------

210

HandFinishing

HandFinish

Memo

Hand Finishing

Install D2680-041 Nut Plate as per Dwg D3804

215	QC9- Inspect visual per OSI004- Fusion Welds	0.00
-----	--	------

215

QC

Memo

Quality Control

220	QC10- Inspect visual per QSI004- ground welds	0.00
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220

QC

Memo

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

230 QC5- Inspect part completeness to step on W/O 0.00

230

QC

Memo

0.00 8 12/01/23

Quality Control

240 Pressure Wash per QSI005 4.3 0.00

240

HandFinish

Memo

0.00

Hand Finishing

IXM 12/04/24

250 White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum 0.00

250

Powdercoat

Memo

0.00

Powder Coating

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

9:30
3200 F
10:00

IXM 12/04/24

WNA 480

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260	QC3- Inspect Part Finish	0.00							
260									
QC	Memo	0.00							
Quality Control									
270		0.00							
270	HandFinishing								
HandFinish	Memo	0.00							
Hand Finishing	✓ Install D2651-3 O-Rings on D2651-1 plugs with Petroleum Jelly and install plugs as per Dwg D3804. Clean excess adhesive.								

1 A H / M 12/01/27

1 H H / M 12/01/27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
280	HandFinishing	0.00							
280									
HandFinish	Memo	0.00							
Hand Finishing	✓ 1-Install D2646 Aft Cap and seal with Sikaflex. Clean excess adhesive A/RSikaflex-291 <u>M119508</u> Sikaflex expire date: <u>12/08</u> 2- Install wearplate as per dwg 2-Wing Walk as per Dwg D3804 and QS1 005 4.4 Batch: <u>M120123</u>								
290	QC3- Inspect Part Finish	0.00							
290									
QC	Memo	0.00							
Quality Control									

1HA f M 12/01/26

S12/01/26

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Tooling: _____

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Date: _____

Stop ***NR2***

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300

QC5- Inspect part completeness to step on W/O

0.00

300

QC

Memo

0.00

Quality Control

310

Packaging

0.00

310

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D206-642-151

Location: _____

PPP Rev: _____

320

QC21- Final Inspection - Work Order Release

0.00

320

QC

Memo

0.00

Quality Control

M.L.J 12/02/03

D12-02-2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Picklist Print

January-12-12 7:50:22 AM

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Work Order ID: 78641

78641

Parent Item: D206-642-151

D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 12/01/2012

Required Date: 26/01/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 10.12.08 PER IIN REV.N DD VERF:EC IPP
REV:B 11.09.16 PER IIN REV.O DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D2620		Manufactured	No			110	Each	18.0000	1	1			
D2620													
Skidtube, 206 Skidtube													

**

SAD 12-01-17

Location	Loc Qty	Loc Code
LG	18	
71616	1	
71617	6	
75587	2	
76815	1	
76817	5	
76819	3	

D2647		Manufactured	No			110	Each	158.0000	1	1			
D2647													
Cap													

**

DEC-01-17

Location	Loc Qty	Loc Code
LG002	158	
73826	49	
75482	109	

1

W/O:		WORK ORDER CHANGES					
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D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 12/01/2012

Required Date: 26/01/2012

Start Qty: 1.00

Required Qty: 1.00

CR3212-4-04

Purchased

No

180

Each

11,453.00

52

52

CR3212-4-04

Cherry Rivet

**

DL 12/01/18

Location

Loc Qty

Loc Code

ST331

1463

116471

78

117816

3

118686

1

118840

16

119017

1355

119075

10

st510

9990

119075

9990

(82)

D2654-1

Manufactured

No

180

Each

13.0000

1

1

D2654-1

Web

**

Location

Loc Qty

Loc Code

LG

13

76756

5

76757

-2

76758

6

77280

180

Each

126.0000

2

(1) CF 12-1-18

D3286-1

Manufactured

No

D3286-1

Doubler

**

DL 12/01/18

Location

Loc Qty

Loc Code

LG002

128

74872

6

75484

4

ST046

-2

76772

116

(2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January-12-12 7:50:22 AM

Work Order ID: 78641

78641

Parent Item: D206-642-151

D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 12/01/2012

Required Date: 26/01/2012

Start Qty: 1.00

Required Qty: 1.00

D2649

Manufactured No

200

Each

580.0000

19

19

D2649

BE 12-01-19

Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG

400

77574

400

19

LG001

180

65317

1

68224

2

68507

11

71355

2

72704

2

72841

11

73390

8

73857

21

73858

53

73859

4

73860

4

76793

61

D3286-3

Manufactured No

200

Each

170.0000

2

2

D3286-3

BE 12-01-20

Spacer

Location

Loc Qty

Loc Code

LG

100

78015

100

LG001

70

74117

1

76773

69

2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

Picklist Print

January-12-12 7:50:22 AM

Work Order ID: 78641

78641

Parent Item: D206-642-151

D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 12/01/2012

Required Date: 26/01/2012

Start Qty: 1.00

Required Qty: 1.00

D2680-041

Manufactured No

210 Each

135.0000 1

D2680-041

Nut Plate

**

12/01/19

Location

Loc Qty

Loc Code

ST013 39

75479 39

ST019 96

76790 96

CR3212-4-03

Purchased No

210 Each

1,706.000 2

CR3212-4-03

Cherry Rivet

**

2 12/01/19

Location

Loc Qty

Loc Code

FP002 716

114859 716

ST331 990

110139 2

119017 988

AN960JD416

NAS1149D0463J

Purchased No

210 Each

0.0000 1

AN960JD416

Washer

**

1118384 (x1) 12/01/19

CCR264SS3-3

Purchased No

210 Each

937.0000 2

CCR264SS3-3

Cherry Rivet

**

2 12/01/19

Location

Loc Qty

Loc Code

ST331 937

113973 2

117849 139

119017 796

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January-12-12 7:50:22 AM

Page 5

Work Order ID: 78641

78641

Parent Item: D206-642-151

D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 12/01/2012

Required Date: 26/01/2012

Start Qty: 1.00

Required Qty: 1.00

MS27039-4-06

Purchased

No

210

Each

296.0000

1

1

MS27039-4-06

Screw

**

M 12/01/25

Location

Loc Qty

Loc Code

ST292

296

119075

296

D2651-1

Manufactured

No

270

Each

177.0000

6

Y1
6

D2651-1

Plug

**

B77559 (x6) M 12/01/25

Location

Loc Qty

Loc Code

FP001

177

57869

1

66445

10

69018

2

70839

2

71037

31

73827

131

D2651-3

Manufactured

No

270

Each

2,667.000

6

6

D2651-3

O-Ring

**

M 12/01/25

Location

Loc Qty

Loc Code

FP001

667

61962

12

73828

655

FP-A

2000

78126

2000

X6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Picklist Print

January-12-12 7:50:22 AM

Work Order ID: 78641

78641

Parent Item: D206-642-151

D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 12/01/2012

Required Date: 26/01/2012

Start Qty: 1.00

Required Qty: 1.00

D3873-1

Manufactured No

280

Each

775.0000

14

14

D3873-1

Bushing

**

HL 12/01/25

Location

Loc Qty

Loc Code

ST088

775

64760

1

68247

4

73829

19

73830

2

76792

249

78017

500

Y14

D2646

Manufactured No

280

Each

119.0000

1

1

D2646

Aft Cap

**

HL 12/01/25

Location

Loc Qty

Loc Code

FP002

119

62678

5

68280

5

70945

1

71038

4

71070

2

73294

1

73825

101

Y1

D3805-041

Manufactured No

280

Each

9.0000

1

1

D3805-041

Wearplate Assembly Fwd, Low Gear

**

1376777 (x1) HL 12/01/26

Location

Loc Qty

Loc Code

FP001

9

75488

6

75489

3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 7

January-12-12 7:50:23 AM

Work Order ID: 78641

78641

Parent Item: D206-642-151

D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 12/01/2012

Required Date: 26/01/2012

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-08

Purchased

No

280

Each

1,037.000

2

2

MS27039-1-08

Screw

**

M 12/01/25

Location

Loc Qty

Loc Code

ST291

1037

117423

77

118910

86

119075

374

119109

500

VZ

MS21042L3

Purchased

No

280

Each

6,081.000

7

7

MS21042L3

Nut

**

M 02/01/25

Location

Loc Qty

Loc Code

ST300

6081

117441

16

117885

32

118451

5

118927

3

119017

5551

119075

474

VZ

D3805-045

Manufactured

No

280

Each

10.0000

1

1

D3805-045

Wearplate Assembly Aft, Low Gear

**

1376786(x1) M 12/01/25

Location

Loc Qty

Loc Code

FP001

10

73817

1

74896

1

76783

8

AN960JD10L

NAS1149D0332J

Purchased

No

280

Each

0.0000

2

2

AN960JD10L

Washer

**

1119042(x2) M 12/01/25

January-12-12 7:50:23 AM

Shop Packet Print

Page 7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January-12-12 7:50:23 AM

Page 8

Work Order ID: 78641

78641

Parent Item: D206-642-151

D206-642-151

Parent Item Name: Replacement Skidtube

Start Date: 12/01/2012

Required Date: 26/01/2012

Start Qty: 1.00

Required Qty: 1.00

AN3-37A

Purchased

No

280

Each

1,371.000

7

7

AN3-37A

Bolt

**

12/01/25

Location

Loc Qty

Loc Code

ST353

1371

117619

4

119086

1367

NAS1149D0363J

Purchased

No

280

Each

3,266.000

7

7

NAS1149D0363.J

Washer

**

12/01/25

Location

Loc Qty

Loc Code

ST298

3266

117601

61

118077

1

118612

18

118968

26

119537

1160

120142

2000

12/01/25

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

ITEM	Qty -041	Qty -043	Part Number	Description
1	X		D3804-041	SKIDTUBE ASSEMBLY, 206 A/B LOW
2		X	D3804-043	SKIDTUBE ASSEMBLY, 206 A/B HIGH
5	1	1	D2600-1-160	EXTRUSION
6	1	1	D2646	AFT CAP
7	1	1	D2647	CAP
8	19	20	D2649	CROSS BOLT SPACER
9	6	8	D2651-1	PLUG
10	6	8	D2651-3	O-RING
11		1	D2654-3	WEB
12	1		D2654-1	WEB
13	1	1	D2680-041	NUT PLATE
14	2	2	D3286-1	DOUBLER
15	2	2	D3286-3	STUD
21	2	2	AN960JD10L	WASHER
22	1	1	AN960JD416	WASHER
23	2	2	CCR264SS3-3	RIVET
24	2	2	CR3212-4-03	RIVET
25	52	52	CR3212-4-04	RIVET
26	2	2	MS27039-1-08	SCREW
27	1	1	MS27039-4-06	SCREW

NOTES

- 1) MATERIAL: N/A
- 2) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
-POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 7) IDENTIFICATION: NONE
- 8) WEIGHT: 12.5 lb
- 9) WELD PER DART QSI 004
- 10) BENDING: DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 11) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015
- 12) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)

SHOWN
 RETURNED
 ENGINEER
 UNCONTROLLED
 SUBJECT TO ALL
 WITHOUT SIGNATURE
 WORK ORDER
 NO. 78641 M.C.J
 12/01/12

RELEASED
 UP 09.03.03
 per ECN 09-536

A	NEW ISSUE	MB	08.07.07
REV.	DESCRIPTION	BY	DATE
DESIGN	97		
DRAWN	97		
CHECKED	97		
MFG. APPR.	97		
APPROVED	97		
DE APPR.	97		
DATE	08.07.07		

DART AEROSPACE USA, INC	
PORT HADLOCK, WA	
DRAWING NO.	REV. A
D3804	SHEET 1 OF 5
TITLE	SCALE
SKIDTUBE ASSEMBLY, 206A/B	NTS

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Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

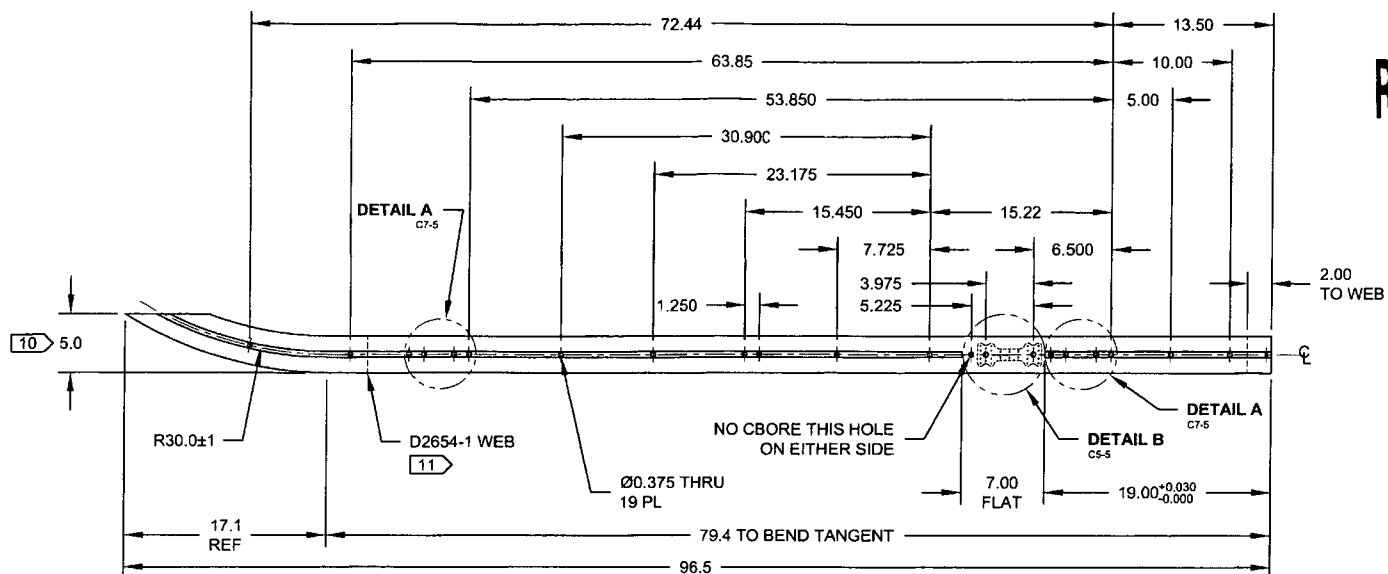
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

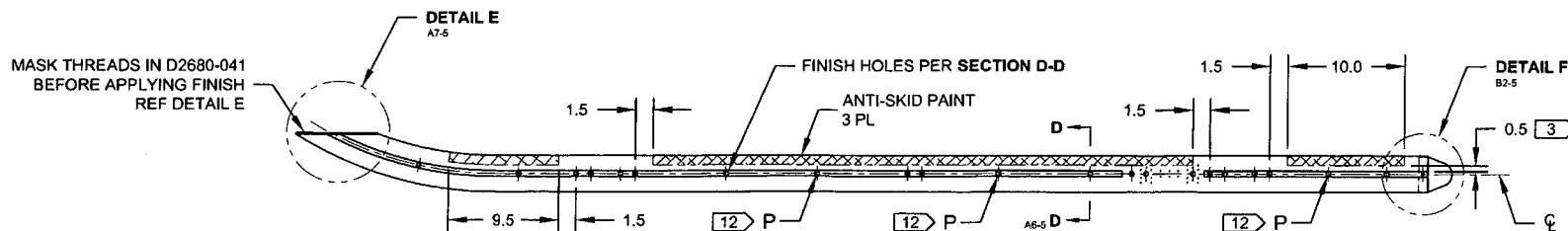
NOTE: Date & initial all entries

78641

RELEASED
09.03.03



D3804-041 BENDING/DRILLING DETAIL



D3804-041 ASSEMBLY/FINISHING DETAIL

DESIGN	93	DART AEROSPACE USA, INC	
DRAWN	93	PORT HADLOCK, WA	
CHECKED	93	DRAWING NO.	REV. A
MFG. APPR.	93	D3804	SHEET 2 OF 5
APPROVED	93	TITLE	SCALE
DE APPR.	93	SKIDTUBE ASSEMBLY, 206A/B	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

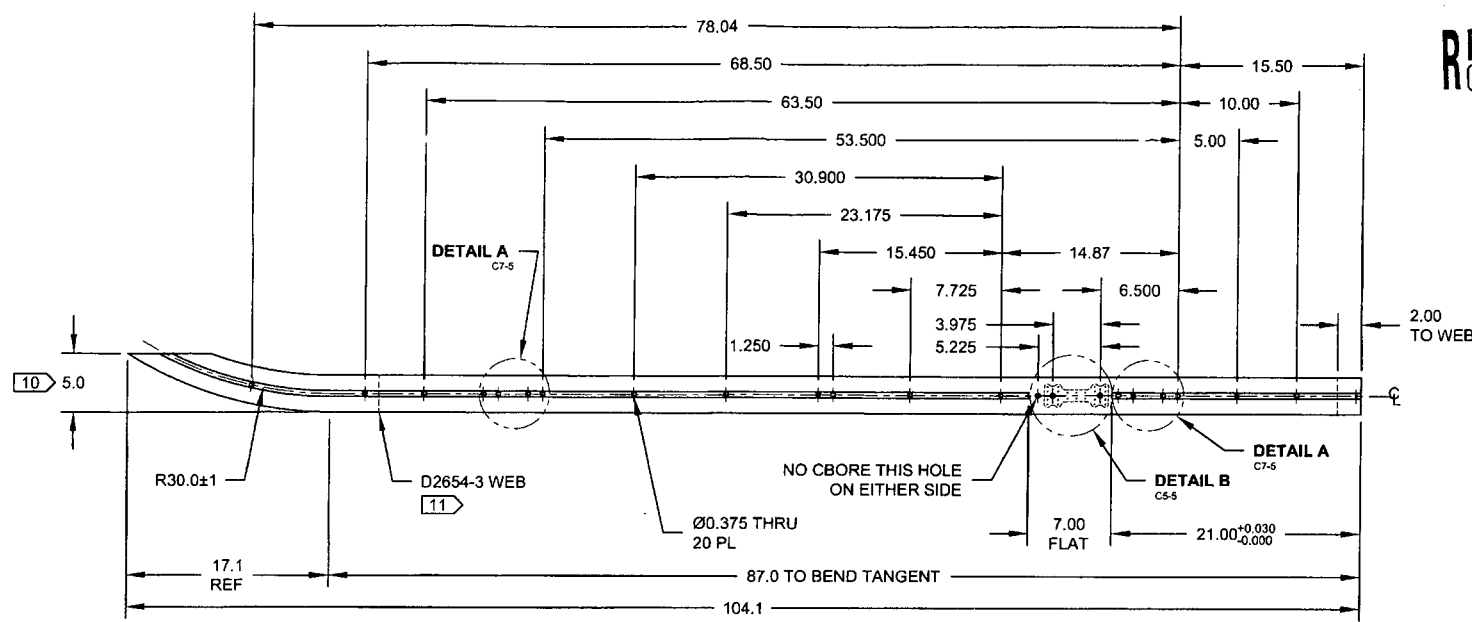
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

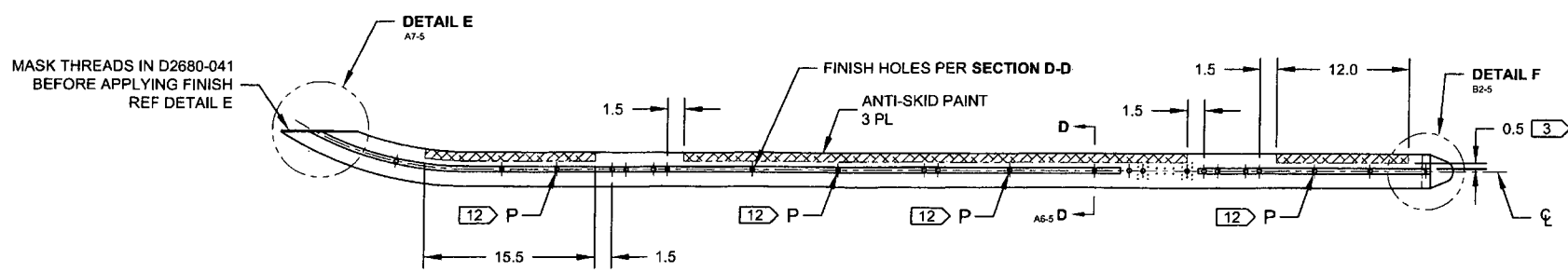
NOTE: Date & initial all entries

78641

RELEASED
UP 09.03.05



D3804-043 BENDING/DRILLING DETAIL



D3804-043 ASSEMBLY/FINISHING DETAIL

DESIGN	97	DART AEROSPACE USA, INC	
DRAWN	1	PORT HADLOCK, WA	
CHECKED	2	DRAWING NO.	REV. A
MFG. APPR.	3	D3804	SHEET 3 OF 5
APPROVED	4	TITLE	SCALE
DE APPR.	5	SKIDTUBE ASSEMBLY, 206A/B	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

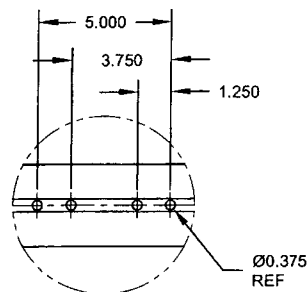
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

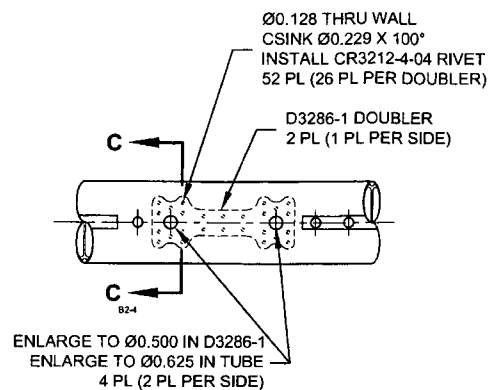
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

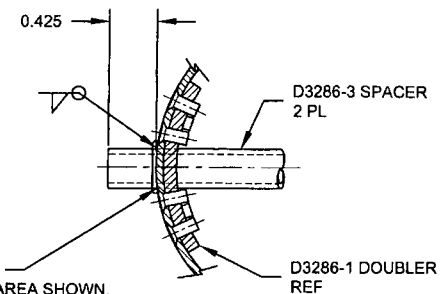
78641
RELEASED
09.03.07



DETAIL A
SCALE NONE
D6-2
C2-2
D5-3
C2-3

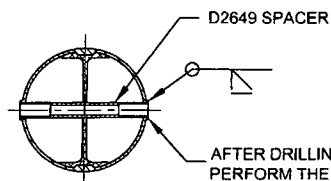


DETAIL B
SCALE NONE
C3-2
C3-3



- TO INSTALL D3286-1/-3:
1. GRIND OFF FLANGE IN AREA SHOWN, FLUSH WITH OUTSIDE SURFACE OF ROUND TUBE
 2. LOCATE & DRILL D3286-1 DOUBLER USING DT3286-1T1
 3. ENLARGE HOLES IN D3286-1 TO Ø0.500
 4. ENLARGE HOLES IN TUBE TO Ø0.625 AND CHAMFER HOLE 0.03 X 45°
 5. RIVET D3286-1 TO TUBE
 6. INSERT D3286-3 SPACER
 7. WELD IN PLACE AND GRIND FLUSH

SECTION C-C
PARTIAL SECTION
SCALE NONE
C6-4



- AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.375 HOLES ONLY:
1. CHAMFER HOLE 0.03 X 45°
 2. INSERT D2649 SPACER
 3. WELD INTO PLACE AND GRIND FLUSH
 4. CBORE TO Ø0.313 X 0.75 DP (EXCEPT WHERE INDICATED)

SECTION D-D
FOR Ø0.375 HOLES ONLY
SCALE NONE
A4-2
A4-3

DESIGN	97	DART AEROSPACE USA, INC	
DRAWN	1	PORT HADLOCK, WA	
CHECKED	97	DRAWING NO.	REV. A
MFG. APPR.	BE	D3804	SHEET 4 OF 5
APPROVED	97	TITLE	SCALE
DE APPR.	11	SKIDTUBE ASSEMBLY, 206A/B	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

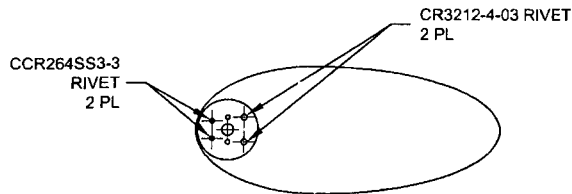
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

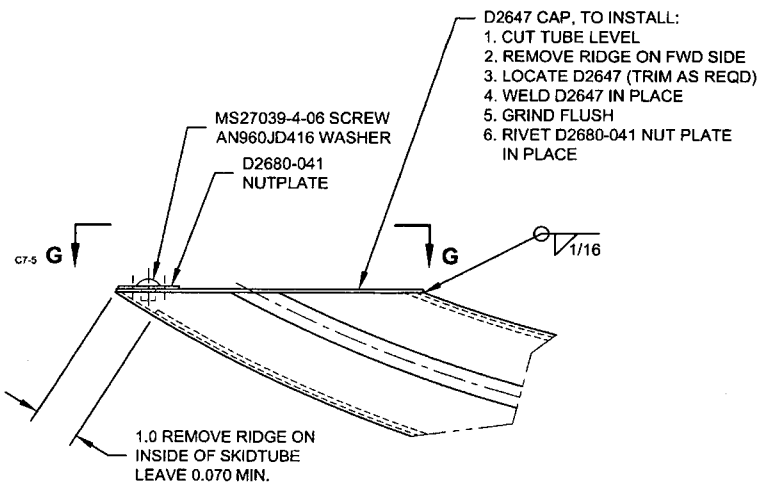
NOTE: Date & initial all entries

78641

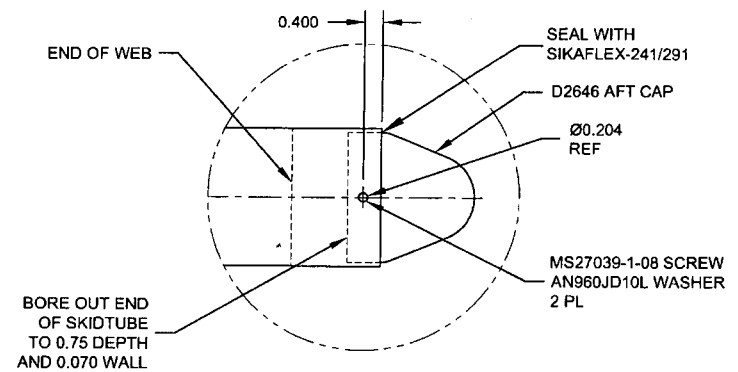
RELEASED
99 09.03.03



VIEW G-G
SCALE NONE A7-5



DETAIL E
SCALE NONE B7-2 B7-3



DETAIL F
SCALE NONE B2-2 B2-3

DESIGN	99	DART AEROSPACE USA, INC	
DRAWN	99	PORT HADLOCK, WA	
CHECKED	99	DRAWING NO.	REV. A
MFG. APPR.	99	D3804	SHEET 5 OF 5
APPROVED	99	TITLE	SCALE
DE APPR.	99	SKIDTUBE ASSEMBLY, 206A/B	NTS
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W/O:		WORK ORDER CHANGES					
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 278

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliot
Job number: 766119
Part number: 206-642-151
Description: 206 skid tube
Welding Process: Tig ☒ Mig ☐
Base material: Aluminum
Current: AC ☒ DC ☐

TEST REQUIREMENTS AND RESULTS

Visual: pass ☒ fail ☐
Penetration: pass ☒ fail ☐

UNACCEPTABLE

Cracks: pass ☒ fail ☐
Undercut: pass ☒ fail ☐
Pin holes: pass ☒ fail ☐
Overlap (cold lap): pass ☒ fail ☐
Porosity (surface): pass ☒ fail ☐
Coloration: pass ☒ fail ☐

Qualifier Pat. Dunn Date of Test Coupon 11-12-20
Welder Barclay Elliot Date of Test Coupon 11-12-20

The above named individual is qualified in accordance with AWS D17.1.2001 to weld